



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/587,663	04/14/2008	Pierre Untersinger	8952-000009/US/NP	8296
27572	7590	11/03/2009	EXAMINER	
HARNESS, DICKEY & PIERCE, P.L.C.			ENGLISH, JAMES A	
P.O. BOX 828			ART UNIT	PAPER NUMBER
BLOOMFIELD HILLS, MI 48303			3616	
			MAIL DATE	DELIVERY MODE
			11/03/2009	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/587,663	<b>Applicant(s)</b> UNTERSINGER ET AL.	
	<b>Examiner</b> James English	<b>Art Unit</b> 3616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 21 October 2009.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-7 and 9-11 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-7 and 9-11 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |                                                                                      |                                                                   |
|--------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____                                                          | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-7 and 9-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Spencer et al. (US 6,619,689 B2) in view of Hirai et al. (US 5,945,185).

With respect to claims 1 and 9, Spencer et al. discloses a method of making an airbag (232) and an airbag (232), the method comprising the steps of blow moulding a selected plastics material comprising PC to form the airbag (232) utilizing a mould corresponding to the final uninflated state (273, 275) of the airbag (232). (Figs. 12 and 18-19, col. 4, lines 4-11, col. 6, lines 7-27 and col. 7, lines 1-4.) Spencer et al. further discloses the mould being such that the moulded airbag (232) has at least one indented region (44), which, on inflation of the airbag (232) becomes outwardly extending. (Figs. 7-8, col. 4, lines 12-40.) Spencer et al. suggests that other suitable thermoplastic materials may be used but does not specifically state using ABS. (Col. 6, line 67 and col. 7, lines 1-4.) Hirai et al. teaches of a blow molded airbag made of a thermoplastic polyurethane resin comprising ABS and PC. (Col. 1, lines 5-10, col. 4, lines 35-52, col. 5, lines 41-46, 65-67 and col. 6, line 5.) It would have been obvious to one having ordinary skill in the art at the time the invention was made to make a blow-moulded airbag made of ABS and PC as described in Hirai et al. into the invention of Spencer et

Art Unit: 3616

al. in order to survive hostile conditions, such as efficient deployment over a range of temperatures. (Col. 1, lines 63-67.)

With respect to claim 2, Spencer et al. discloses a gas generator (270) for the airbag (232). (Col. 6, lines 1-6.)

With respect to claims 3-5 and 10-11, Spencer et al. discloses the indented region (269) comprises an annular indented groove that comprises a central indented area. (Figs. 14 and 17-19, col. 6, lines 34-40.)

With respect to claims 6-7, Spencer et al., as modified, discloses using polycarbonate (PC) and Acrylonitrile-Butadiene-Styrene (ABS) to form the airbag. Spencer et al., as modified, discloses using the claimed invention except for specifying using at least 40% ABS and PC or at least 80% ABS and PC. It would have been obvious to one having ordinary skill in the art at the time the invention was made to make the airbag out of at least 40% ABS and PC or at least 80% ABS and PC, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233.

3. Claims 1-3, 6-7 and 9-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Khoudari et al. (US 2002/01858847) in view of Matsuoka et al. (US 2004/0138377).

With respect to claims 1 and 9, Khoudari et al. discloses a method of making an airbag (40) and an airbag (40), the method comprising the steps of blow moulding a selected plastics material comprising PC to form the airbag (40) utilizing a mould

Art Unit: 3616

corresponding to the final uninflated state (56) of the airbag (40). (Figs. 1-2 and 4-5, paragraphs 20 and 25.) Khoudari et al. further discloses the mould being such that the moulded airbag (40) has at least one indented region (50), which, on inflation of the airbag (40) becomes outwardly extending. (Figs. 4-5, paragraphs 22-23.) Khoudari et al. provides examples of other suitable thermoplastic materials that may be used but does not specifically state using ABS. (Paragraph 25.) Matsuoka et al. teaches of a blow molded thermoplastic resin applicable to air bags comprising ABS (Paragraph 67, line 13) and PC (Paragraph 67, line 10). (Paragraphs 67, 98-100.) It would have been obvious to one having ordinary skill in the art at the time the invention was made to use ABS to make a blow-moulded airbag as described in Matsuoka et al. into the invention of Khoudari et al. in order to achieve an airbag with characteristics of workability and moldability. (Paragraph 7.)

With respect to claim 2, Khoudari et al. discloses a gas generator for the airbag (40). (Paragraph 24.)

With respect to claims 3 and 10, Khoudari et al. discloses the indented region (50) comprises an indented groove. (Figs. 4-5.)

With respect to claims 6-7, Khoudari et al., as modified, discloses using polycarbonate (PC) and Acrylonitrile-Butadiene-Styrene (ABS) to form the airbag. Khoudari et al. discloses using the claimed invention except for specifying using at least 40% ABS and PC or at least 80% ABS and PC. It would have been obvious to one having ordinary skill in the art at the time the invention was made to make the airbag out of at least 40% ABS and PC or at least 80% ABS and PC, since it has been held that

Art Unit: 3616

where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233.

### ***Response to Arguments***

4. Applicant's arguments filed 10/21/2009 have been fully considered but they are not persuasive. Applicant first argues that Hirai does not provide any teaching to combine ABS with the PC airbag of the primary Spencer reference. The Spencer reference suggests that other suitable thermoplastic materials may be used but does not specifically state using ABS. (Col. 6, line 67 and col. 7, lines 1-4.) Hirai teaches of using polycarbonate (col. 4, lines 35-52, specifically line 43) and ABS (col. 5, lines 41-48) to form a blow moulded airbag. Applicant also argues that Matsuoka et al. does not provide any teaching to combine ABS with the PC airbag of the primary Khoudari reference. Khoudari et al. provides examples of other suitable thermoplastic materials that may be used but does not specifically state using ABS. (Paragraph 25.) Hirai teaches of using polycarbonate (Paragraph 67) and ABS (Paragraph 67) to form a blow moulded airbag. (Paragraphs 98-100.)

5. Applicant's arguments, see Remarks p. 5-7, filed 10/21/2009, with respect to the rejection(s) of claim(s) 4-5 under Spencer et al. have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Spencer et al. Applicant argues region (259) of the Spencer reference does not show an annular region. (259)

Art Unit: 3616

does not show an annular central indented groove. However, (269) shown in Fig. 14 does show an annular central indented groove. (Figs. 14 and 17-19, col. 6, lines 34-40.)

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to James English whose telephone number is (571)270-7014. The examiner can normally be reached on Monday - Friday, 8:00 - 4:30 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul N. Dickson can be reached on (571)272-7742. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/James English/  
Examiner, Art Unit 3616

Application/Control Number: 10/587,663

Page 7

Art Unit: 3616

/Paul N. Dickson/

Supervisory Patent Examiner, Art Unit 3616